

FIGURE 1-1: Chronology of Major ANGTS Events, 1

1968 - 1976

- February 8, 1968 Oil is discovered at Prudhoe Bay, Alaska. The new North Slope reserves are estimated to contain 9.6 billion barrels of crude oil and over 26 trillion cubic feet of gas.
- February 11, 1969 The Trans-Alaska Pipeline System (TAPS) is proposed by EXXON, Arco and Sohio to carry their Prudhoe Bay oil from the Alaskan North Slope to a tanker terminal on the Gulf of Alaska.
- June 23, 1969 Mountain Pacific Pipeline Ltd., a joint venture of the Bechtel Corporation (Washington) and Westcoast Transmission (Vancouver), announces plans for a West Coast gas pipeline from the Yukon territories south to the Pacific Northwest.
- April 1, 1970 Legal action is taken by environmental groups to halt TAPS construction.
- June 27, 1970 Trunk North, a small consortium of western Canadian gas distribution and energy development firms led by Alberta Gas Trunk Line, AGTL (Calgary) announces plans for a 1,550-mile pipeline from the Alaskan North Slope south through the Yukon territories into Alberta province.
- July 1970 Northwest Project Study Group, an alliance of Prudhoe Bay producers and leading American and Canadian gas transmission companies, announces plans for a 2,500-mile pipeline from Prudhoe Bay to Canada's Mackenzie Delta, and then south through Canada into the American Midwest. Northwest Project is led by TransCanada Pipelines (Toronto) and Michigan-Wisconsin (Detroit).
- June 8, 1972 Trunk North and the Northwest Project merge into Canadian Arctic Gas Pipeline Limited (CAGPL).
- December 4, 1972 El Paso Natural Gas announces a 800-mile pipeline along the TAPS route to a Gulf of Alaska port, where gas would be liquefied and shipped by tanker to California for marketing.
- October 17, 1973 The Organization of Petroleum Exporting Countries (OPEC) begins an oil embargo of the United States.

- November 16, 1973 Congress passes the Trans-Alaska Pipeline Authorization Act (PL 93-153) to free TAPS from pending litigation and expedite construction.
- December 6, 1973 Canadian Prime Minister Pierre Eliot Trudeau agrees in principle to the construction of a gas pipeline from Alaska through Canada, such as that suggested by Arctic Gas.
- January 23, 1974 The U.S. Interior Department and Alyeska, the TAPS consortium, signed the agreement and grant of right-of-way for the TAPS.
- February 1974 Pacific Northwest Pipeline Corporation (Salt Lake City) is divested by El Paso, after 15 years of legal dispute, and sold to a new group, the Northwest Pipeline Corporation, led by John G. McMillian, a Texas energy speculator.
- March 21, 1974 The Canadian government appoints Justice Thomas R. Berger to lead an inquiry of the environmental and socio-economic implications of Northern pipeline development.
- Arctic Gas files applications before the Canadian National Energy Board (NEB) for certificate of public convenience and before the Department of Northern and Indian Affairs (DINA) for right-of-way to cross Canadian federal lands. Companion applications are filed with relevant government agencies by U.S. affiliates of Arctic Gas.
- May 3, 1974 TAPS right-of-way is granted to Alyeska by the State of Alaska.
- April 29, 1974 TAPS construction begins.
- July 31, 1974 AGTL and Westcoast Transmission, united as Foothills Pipe Lines, announces plans 1,040-mile all-Canadian Maple Leaf pipeline from the Mackenzie Delta to Alberta and British Columbia.
- September 13, 1974 AGTL officially withdraws from Arctic Gas.
- September 24, 1974 El Paso Alaska, the TAPS parallel gasline plan, files with the Federal Power Commission (FPC) for certificate of public convenience and necessity.
- January 23, 1975 The FPC consolidates the Arctic Gas and El Paso Alaska applications (Docket No. CP75-96 et al.) for comparative consideration.

- March 3, 1975 Canada's Berger Inquiry, officially the Mackenzie Valley Pipeline Inquiry, begins public hearings in Yellowknife, Northwest Territories.
- March 27, 1975 Foothills files its Maple Leaf application with the Canadian NEB for certificate of public convenience and with DINA for right-of-way across Canadian federal lands.
- May 5, 1975 FPC Administrative Law Judge Natum Litt begins hearings on the two competing U.S. applications for Alaska gas development and transmission: Arctic Gas and El Paso Alaska.
- June 1975 U.S. Department of the Interior (DOI) issues its draft Environmental Impact Statement (EIS), which notes the environmental superiority of an alternative pipeline route, called the Fairbanks corridor, south along the Alaska Highway.
- January 1976 Two U.S. Senate committees with Alaska energy jurisdiction recommend the Alaska Highway corridor as an overland alternative to the Arctic Gas route.
- March 15, 1976 AGTL, Westcoast Transmission and Northwest Pipeline, united as the Alcan Highway group, commission a feasibility study for a gas pipeline from the North Slope along the Alaska Highway into Canada and the western U.S.
- April 7, 1976 DOI issues its final EIS for Alaskan natural gas pipeline development.
- April 23, 1976 The Alcan group, led by Northwest Pipeline's McMillian and AGTL's S. Robert Blair, agree to sponsor the Alaska Highway Pipeline project.
- July 9, 1976 The Alcan group submits its Alaska Highway application for certificate of public convenience and necessity to the FPC for consideration.
- July 23, 1976 FPC accepts the Alaska Highway application for comparative consideration with the Arctic Gas and El Paso Alaska plans. Judge Litt is directed to assess the Alcan group plan in his hearings, now in their 14th month.
- August 31, 1976 The Alcan Group files its application with Canadian authorities for the Canadian sections of the Alaska Highway proposal.

- September 10, 1976 Canadian NEB accepts the Alaska Highway application for consideration along with the Arctic Gas and Maple Leaf proposals.
- October 1, 1976 Congress passes the Alaska Natural Gas Transportation Act (ANGTA), which establishes procedures for Alaska gas pipeline selection and sets a September 1977 deadline for presidential decision.

Source: OFI "Chronology of Major Events" and various project documents.

FIGURE 2-3: Chronology of Major ANGTS Events, 2

1976 - 1979

- October 1, 1976 Congress passes the Alaska Natural Gas Transportation Act (ANGTA), which establishes procedures for Alaska gas pipeline selection and sets a September 1977 deadline for presidential decision.
- October 22, 1976 President Gerald Ford signs ANGTA (PL 94-586) into law.
- November 12, 1976 The FPC hearings, under Judge Litt, conclude after 253 days of hearings and nearly 44,500 pages of testimony.
- November 18, 1976 Testimony concludes in Justice Berger's Mackenzie Valley Pipeline Inquiry in Canada. Report preparation, begun several months before, continues.
- December 7, 1976 FPC staff, in its final position brief, outlines a hybrid proposal drawing together the most attractive elements of each of the three programs, but most closely resembling the Alaska Highway plan.
- December 14, 1976 The FPC issues Order No. 558 prescribing pipeline selection procedures in accord with the Alaska Natural Gas Transportation Act (ANGTA) of 1976.
- February 1, 1977 Initial Decision issued by Judge Litt recommends approval of the Arctic Gas plan but allows that all three plans appear feasible and reasonable.
- February 16, 1977 The Alcan groups submits a revised proposal which includes a large-diameter (48-inch), high-pressure pipeline and provision for a lateral into the Mackenzie Delta.
- February 23, 1977 President Jimmy Carter and Trudeau discuss prospects for completing pipeline selection within the ANGTA timetable.
- March 3, 1977 Canadian Energy Minister Alastair Gillespie meets with top Carter Administration officials in Washington to establish guidelines for a inter-continental pipeline treaty.
- March 8, 1977 The Alcan group files amended application to the FPC for the 48-inch diameter revision.

- March 9, 1977 The Canadian government announces two studies (one environmental, the other socio-economic) will be conducted to study the impact of the new Foothills Alcan Highway proposal on the Yukon region.
- March 21, 1977 The Environmental Assessment Review Panel, the environmental component of the Yukon region studies, begins its hearings under the chairmanship of Dr. Harry Hill.
- March 22, 1977 Supplemental information is filed with the FPC by all three competing applicants: Arctic Gas, El Paso Alaska and the Alcan group.
- April 4-8, 1977 Oral argument is heard before the FPC commissioners and staff on the three Alaska gas pipeline proposals.
- April 19, 1977 Kenneth Lysyk is appointed to lead the Yukon region study on projected socio-economic affects of Northern pipelining.
- April 28, 1977 The Canadian Parliament approves and empowers the Northern Pipeline Agency (NPA) and Basil Robinson, former Under-Secretary of State for External Affairs, is named as Pipeline Commissioner.
- May 2, 1977 The FPC, in its recommendation to the President, advocates an overland pipeline route, but commissioners are split two-two between the Arctic Gas and Alaska Highway plans.
- May 9, 1977 Justice Berger's preliminary report recommends postponement of a Mackenzie Valley pipeline for at least 10 years due to environmental consideration, sociological disruption and native claims settlement. By default, his decision favors the Alcan group.
- May, 1977 TAPS construction is completed.
- June 20, 1977 First Prudhoe Bay oil enters TAPS.
- June 27, 1977 The President's Council on Environmental Quality (CEQ) endorses the Alaska Highway plan as "environmentally preferable."
- July 1, 1977 The President's Interagency Task Forces, created in accordance with ANGTA, report their findings. Two groups (Environmental Issues, National Economic Benefits) favor the Alaska Highway plan; one (Socio-economic Impacts) recommends El Paso; one (Construction Delay and Cost Overruns) supports either. The four

remaining task forces (Supply, Demand and Energy Policy; Safety and Design; International Relations and National Security) do not select alternatives.

July 4, 1977

The Canadian NEB rejects the Arctic Gas plan and, with important stipulations, recommends the Alaska Highway plan. The board envisions a future Dempster Lateral pipeline to connect the Mackenzie Delta with the Alaska Highway project.

July 8, 1977

An explosion destroys the main building at TAPS pump station #8, delaying full system mobilization.

July 20, 1977

Interior Secretary Cecil Andrus recommends the Alaska Highway plan.

July 29, 1977

The Arctic Gas (CAGPL) consortium, after a \$150 million investment, withdraws its proposal. Eight U.S. Arctic Gas members endorse the Alaska Highway plan.

August 1, 1977

The Lysyk Inquiry reports that the Alaska Highway pipeline can be constructed through the southern Yukon without unacceptable social and economic impacts.

August 17, 1977

Negotiations on U.S.-Canadian gas pipeline treaty begin in Ottawa and initial bargaining positions are established. Canada, represented by Robinson, proposes that the Alaska Highway consortium endow a \$200 million socio-economic impact fund for Yukon and route the pipeline further north to facilitate a Mackenzie Valley connection.

August 23, 1977

Treaty negotiations continue. The U.S. team, led by Leslie Goldman, an aid to Energy Secretary James Schlesinger, recommends preliminary tax payments in the Yukon in lieu of the impact fund and agrees to help finance the Dempster Lateral, which will connect the Alaska Highway line with the delta.

August 24, 1977

The White House reports that President Carter will delay his Alaska gas pipeline decision until late September, after Congress reconvenes.

August 26, 1977

Treaty negotiations continue. Allan MacEachen, Privy Council president and minister with jurisdiction over the pipeline, and Schlesinger fail to resolve routing and financing problems.

August 29, 1977

President Carter and Prime Minister Trudeau, after conferring over the telephone, instruct their respective emissaries to be more conciliatory.

Prime Minister Trudeau meets with his cabinet to review Canadian negotiating strategy.

- August 31, 1977 President Carter's top policy advisors recommend the Alaska Highway alternative.
- September 1, 1977 Treaty negotiations continue. MacEachen and Schlesinger deliberate all day. Canada, abandoning its diversion north to Dawson, insists that the U.S. pay for the Dempster Lateral. U.S. negotiators agree, but only if Yukon property taxes are restrained.
- September 2, 1977 Treaty negotiations conclude. The Canadians agree to limit Yukon taxation and the treaty's precise language is specified.
- September 8, 1977 Prime Minister Trudeau and his cabinet, after Parliamentary debate, approve the Alaska Highway plan.
- September 22, 1977 President Carter issues his Decision and Report to Congress which recommends the Alaska Highway plan, as amended with the 48-inch diameter pipe.
- October 12, 1977 The Federal Energy Regulatory Commission (FERC, formerly the FPC) endorsed the President's Decision in favor of the Alcan group.
- November 2, 1977 Congress overwhelmingly approves the Alaska Highway pipeline.
- November 8, 1977 President Carter signs the Alaska Highway plan into law (PL 95-158).
- December 16, 1977 The FERC, which assumed the FPC's certification responsibilities, issues a conditional certificate to the Alcan group enabling it to begin pipeline design.
- December 31, 1977 The Alcan group reorganizes as the Northwest Alaskan Pipeline Company and officially designates its approved plan as the Alaska Natural Gas Transportation System (ANGTS).
- May 8, 1978 The FERC proposed an incentive rate of return (IROR) structure to govern construction costs, as required by the President's Decision.
- November 9, 1978 President Carter signs into law the Natural Gas Policy Act (PL 95-621), which set the wellhead price of Alaska natural gas at \$1.45 per thousand cubic feet plus monthly inflation allowances.

- December 1, 1978 The FERC adopts an IROR mechanism, but will continue its deliberations on its critical cost factors.
- January 26, 1979 Northern Border, the U.S. transmission consortium allied with the Northwest Alaskan group to construct the ANGTS' East Leg, files for FERC approval to build a \$1.4 billion "pre-build" section to transport Canadian gas until Alaska gas is available.
- February 2, 1979 The FERC decides that the Prudhoe Bay producers must pay for construction and operation of a North Slope conditioning plant to prepare their gas for transport.
- June 8, 1979 The FERC adopts IROR values.
- John T. Rhett is nominated as Federal Inspector.

Source: OFI "Chronology of Major Events" and various project documents.

FIGURE 3-7: Chronology of Major ANGTS Events, 3

1979 - 1984

- June 8, 1979: John T. Rhett, Jr., is nominated as Federal Inspector.
- June 11, 1979: President Carter signs Reorganization Plan No. 1 of 1979, which stipulates the duties of the Federal Inspector.
- June 13, 1979: Department of the Interior conditionally authorizes the Right-of-Way grant for construction across federal land in Alaska.
- June 21, 1979: President Carter signs Executive Order 12142, which implements the Federal Inspector's Executive Policy Board (EPB).
- July 1, 1979: The Office of the Federal Inspector (OFI) officially comes into being.
- July 13, 1979: Rhett is sworn in as Federal Inspector.
- August 6, 1979: FERC approves a 48-inch pipeline size and 1260-psig pipe pressure for the Alaska Leg.
- September 6, 1979: FERC issues its final ANGTS IROR and tariff order.
- October 15, 1979: The Subcommittee on Oversight and Investigations of the House Interior and Insular Affairs Committee hears testimony on ANGTS financing and OFI implementation.
- November 1979: Northern Border files its Certification Cost and Schedule Estimate (CCSE) with the FERC for the East Leg Prebuild.
- January 11, 1980: FERC issues an order granting final certificates of public convenience and necessity authorizing the construction and operation of the West Leg Prebuild.
- March 10, 1980: OFI signs major technical support contract with Unified Industries, Inc. (UII) for engineering and environmental assistance in ANGTS oversight.
- March 12, 1980: Interior issues Right-of-Way grant to Pacific Gas Transmission (PGT) for the West Leg Prebuild.
- April 28, 1980: FERC issues an order granting final certificates of public convenience and necessity for the prebuild portion of the East Leg (Northern Border), at a 811-mile length and cost of \$1.2 billion.

- June 10, 1980: U.S. and Canada formally agree on ANGST procurement procedures.
- June 13, 1980: FERC issues a supplemental order authorizing construction of a prebuild section to deliver Alberta natural gas to southern California.
- July 1, 1980: Northwest Alaskan (NWA) files eight-volume application for final certification of the Alaska Leg with the FERC and applies to Interior for Right-of-Way grant.
- Congress unanimously passes concurrent resolution indicating continued support for ANGTS.
- July 17, 1980: President Carter, in a letter to Canadian Prime Minister Trudeau, assures the Government of Canada of American resolve to complete construction of the ANGTS.
- Canadian government approves construction of ANGST Phase I.
- September 12, 1980: Public Service Commission of North Dakota denies East Leg sponsors a permit to cross the state within the corridor previously approved by the Decision.
- December 1, 1980: Interior issues Right-of-Way grant to NWA for Alaska Leg.
- December 8, 1980: OFI issues Notice to Proceed to PGT for West Leg Prebuild construction. Construction begins.
- March 11, 1981: Interior issues Right-of-Way grant to Northern Border for East Leg Prebuild, pending resolution of North Dakota litigation.
- April 2, 1981: U.S. District Court for North Dakota grants motion for summary judgment in favor of the OFI and the FERC, thereby allowing work to proceed on the East Leg segment after a nearly seven-month delay.
- April 18, 1981: OFI issues Notice to Proceed to Northern Border for East Leg Prebuild construction. Construction begins in early May.
- June 17, 1981: ANGTS sponsors announce one-year slip in project, from target completion date of winter 1985-86 to winter 1986-87.
- McMillian, NWA chairman, requests ANGTA waivers from President Ronald Reagan.

- October 1, 1981: West Leg Prebuild construction complete, on schedule and, at \$165 million, under budget. First Alberta gas enters West Leg Prebuild for shipment to California.
- October 15, 1981: President Reagan recommends ANGTA waiver proposal to the U.S. Congress.
- Late October 1981: The Subcommittee on Fossil and Synthetic Fuels of the House Energy and Commerce Committee hears testimony on the ANGTA waiver proposals.
- December 10, 1981: Congress, after considerable debate, approves Reagan's ANGTA waiver proposal.
- December 15, 1981: President Reagan signs ANGTA waiver proposal into law.
- April 30, 1982: ANGTS sponsors announce a second project slip from target completion date of winter 1986-87 to winter 1989-90, based upon obtaining financing in mid-1984. Over next year, sponsor and government organizations reduce personnel.
- September 1, 1982: East Leg Prebuild construction nearly complete, with exception of some final restoration work, on schedule and, at \$1.13 billion, under budget. First Alberta gas enters East Leg Prebuild for shipment to U.S. Midwest.
- January 1983: A blue-ribbon Alaskan energy advisory commission recommends the construction of an alternative \$26.6 billion pipeline, the Trans-Alaskan Gas System (TAGS), to parallel TAPS.
- May 9, 1983: Foothills, the Canadian sponsor consortium, finishes the construction of its prebuild sections. ANGTS Phase I is officially complete.
- September 1983: TAGS proponents incorporate as Yukon-Pacific Corporation (YPC) to promote their project.
- September 20, 1983: Williams Companies acquires the Northwest Energy Company, the NWA parent company previously chaired by McMillian. New NWA chief executive, Vernon T. Jones, informs OFI that the Williams Companies will continue to actively support ANGTS and provide leadership for the project.
- November 16, 1983: The Subcommittee on Energy Regulation of the Senate Energy and Natural Resources Committee hears testimony on the competing ANGTS and TAGS projects.

Source: OFI "Chronology of Major Events" and Quarterly Reports.

**MAJOR EVENTS (Continued)
1982-1992**

- September 1, 1982 Gas from Canada began flowing through the Eastern Leg of ANGTS. This segment was completed under budget and on time. With completion of the Eastern Leg, 1,512 miles or 32% of ANGTS was constructed.
- December 1982 OFI approved the Alaska sponsor's process and design of the Alaska Gas Conditioning Facility.
- June 1983 Audited costs for the Alaska Leg (as of 6/30) totaled: \$603.7 million.
- September 1983 Merger between Northwest Energy Company and The Williams Companies.
- February 1, 1984 District of Columbia Circuit Court of Appeals issued a judgment affirming OFI's determination concerning the resolution of the court case initiated by Iowa State Commerce Commission over a final rate base determination issued by OFI on Eastern Leg expenditures.
- 1984 Final audited costs for the West Leg prebuild totaled: \$172.9 million.
Final audited costs for the East Leg prebuild totaled: \$1.280 billion.
- April 16, 1985 OFI approved the Pipeline Design Criteria Manual and Stipulation 1.6.1 environmental plans for the Alaska segment of ANGTS.
- November 1987 Northern Border filed application with FERC to expand/extend the Eastern Leg for 371 miles between Ventura, Iowa and Tuscola, Illinois.
- December 1987 ARCO withdrew from its involvement in ANGTS project partnership.
- January 1988 President Reagan issued a "Finding" required under section 12 of ANGTA to permit the exportation of Alaskan natural gas (which cleared the way for Yukon Pacific Corporation to seek export authorization from DOE under the Natural Gas). (See Tab G - TAGS)
- June 1988 Alaska sponsors announced revised cost estimate for ANGTS (reduction of 45%) from \$26.1 billion to \$14.6 billion (in 1988 dollars).
- June 1988 Bureau of Land Management issued the final Environmental Impact Statement issued for Trans-Alaska Gas System (TAGS), competing project to ANGTS.

November 1988 Bureau of Land Management issued the Right-of-Way Grant for TAGS.

December 1988 Pacific Gas Transmission Company (PGT) filed application with FERC to expand/extend the Western Leg of ANGTS.

April 1989 PGT filed application with California Public Utilities Commission for the interstate portion of the project in California.

September 21, 1989 Executive Policy Board was reactivated in light of increased activity on ANGTS and, in June 1990, the Board members visited Alaska.

November 16, 1989 DOE issued Order 350 approving the application of Yukon Pacific Corporation to export 16.5 trillion cubic feet (Tcf) of Alaskan natural gas as liquefied natural gas (LNG) to Pacific Rim markets. (See Tab G - TAGS)

June 1990 Foothills Pipe Lines Ltd. (Canadian sponsor of ANGTS) joined the ANGTS consortium. Foothills became a co-equal partner with Pacific Gas & Electric, The Williams Companies and TransCanada PipeLines, acquiring a 25 percent voting interest in the partnership.

December 1990 California Public Utilities Commission (CPUC) granted certificate for construction of California portion of PGT-PG&E pipeline expansion.

January 1991 Northern Border filed application with FERC to acquire the Iowa Line and construct 231 miles of new 30" pipeline from Harper, Iowa to Tuscola, Illinois.

May 24, 1991 FERC issued final EIS for PGT portion of PGT-PG&E expansion project.

August 1, 1991 FERC issued PGT certificate for pipeline construction. (total project: 845 miles of 42" and 36" pipeline looping of its existing system to be completed and in operation by November 1993).

September 1991 Northern Border filed amendment with FERC for expansion/extension project to acquire the Iowa Line and withdrew request to build new pipeline from Harper, Iowa to Tuscola, Illinois.

December 1991 Exxon and BP withdrew from involvement in the ANGTS partnership.

October 1992 Office of the Federal Inspector for ANGTS was abolished by P.L. 102-486, the Energy Policy Act of 1992, which transferred all functions and authority vested in the Federal Inspector to the Secretary of Energy.